Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claim 1. (Currently Amended) A method for producing an allyl compound having a compositional formula different from that of an allyl starting material compound, which comprises reacting the allyl starting material compound with a nucleophilic agent in the presence of a catalyst containing at least one transition metal compound containing a transition metal selected from the group consisting of transition metals elements belonging to Group 8 to Group 10 of the Periodic Table and at least one bidentate coordinated phosphite compound selected from the group consisting of compounds having structures of the following formulae (I) to (III):

$$(R^{-1}O)(R^{-2}O)P - O - A^{1} - O - P(OR^{-3})(OR^{-4})$$
 (I)

$$z_{0}^{1}$$
P-O-A²-O-P(OR ⁵)(OR ⁶) (11)

$$Z^{2} \bigcirc P - O - A^{3} - O - P \bigcirc Z^{3}$$
 ([[])

wherein A^1 to A^3 are respectively independently a diarylene group having a branched alkyl group at the ortho-position, R^1 to R^6 are respectively independently an <u>optionally substituted</u> alkyl group which may have a substituent or an aryl group which may have a substituent (including which may be a heterocyclic compound forming that forms an aromatic 6π electron cloud on the upper and lower sides of the ring, hereinafter the same)[[,]] and Z^1 to Z^3

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are respectively independently an <u>optionally substituted</u> alkylene group which may have a substituent, an <u>optionally substituted</u> arylene group which may have a substituent, an <u>optionally substituted</u> alkylene-arylene group which may have a substituent or a <u>an optionally substituted</u> diarylene group which may have a substituent.

Claim 2. (Currently Amended) The method for producing an allyl compound according to Claim 1, wherein the allyl starting material compound has a structure of the following formula (a):

wherein R^a to R^c are respectively independently a hydrogen atom, a halogen atom, a hydroxyl group, an amino group, an alkyl group, an aryl group, an alkoxy group, an aryloxy group, an alkylthio group, an arylthio group, an acyl group or an acyloxy group; and among these groups, the amino group, the alkyl group, the aryl group, the alkoxy group, the aryloxy group, the alkylthio group, the arylthio group, the acyl group or the acyloxy group may have substituent are optionally substituted; and when any of R^a to R^c has a carbon chain, the carbon chain may have optionally has at least one carbon-carbon double bond or triple bond;

X is a halogen atom, a hydroxyl group, a nitro group, an amino group, a sulfonyl group, a sulfonate group, an acyloxy group, a carbonate group, a carbamate group, a phosphate group, an alkoxy group or an aryloxy group; and among these groups, the amino group, the sulfonyl group, the sulfonate group, the acyloxy group, the carbonate group, the carbonate group, the carbonate group, the alkoxy group and the aryloxy group may have a

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substituent are optionally substituted; and when X has a carbon chain, the carbon chain may

have optionally has at least one carbon-carbon double bond or triple bond; and

at least two optional groups among R^a to R^e and X may bend are bonded to each other to form at least one cyclic structure.

Claim 3. (Original) The method for producing an allyl compound according to Claim 1, wherein the transition metal compound is at least one compound selected from the group consisting of a ruthenium compound, a rhodium compound, an iridium compound, a nickel compound, a palladium compound and a platinum compound.

Claim 4. (Currently Amended) The method for producing an allyl compound according to Claim 1, wherein in the above formulae (I) to (III), R^1 to R^6 are respectively independently a <u>an optionally substituted</u> C_6 - C_{20} aryl group which may have a substituent, and Z^1 to Z^3 are respectively independently a <u>an optionally substituted</u> diarylene group which may have a substituent.

Claim 5. (Currently Amended) The method for producing an allyl compound according to Claim 1, wherein in the above formulae (I) to (III), A¹ to A³ are respectively independently a <u>an optionally substituted</u> diarylene group having a structure of the following formula (IV) or (V) which may have a substituent:

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Claim 10. (New) The method for producing an allyl compound according to Claim 1, wherein the transition metal compound is present in the reaction system in an amount of at least 1×10^{-8} mole equivalent relative to the amount of starting allyl compound.

Claim 11. (New) The method for producing an allyl compound according to Claim 10, wherein the amount of said transition metal compound is at least 1×10^{-7} mole equivalent.

Claim 12. (New) The method for producing an allyl compound according to Claim 1,

phosphile
wherein said bidentate phosphate compound is present in the reaction system in an amount

A
determined by a mole ratio of at least 0.1 relative to the amount of the transition metal
compound that is present.

Claim 13. (New) The method for producing an allyl compound according to Claim 12, phosphite wherein the molar ratio of the bidentate phosphate compound to the transition metal compound is at least 0.5.